## United States Patent [19]

## Olsson

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[54]	TRANSISTOR AMPLIFIER	
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[56]	References Cited	
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## [57] ABSTRACT

An amplifier comprising of two MOS-transistors  $Q_1$  and  $Q_2$  and a resistor  $R_1$  connected as a two-pole between a DC power source, PS<sub>1</sub>, and a load  $Z_L$ ; in order to avoid harmful influences on the amplifier from the load current, and to obtain a simple control unit for this purpose:

- (a) the emitters (sources) of  $Q_1$  and  $Q_2$  form one pole of the two-pole, and one side of  $R_1$  is connected in series with the collector (drain) of  $Q_1$ , and the other side of  $R_1$  together with the collector (drain) of  $Q_2$  form the other pole of the two-pole,
- (b) the resistance of  $R_1$  is of the same magnitude as  $Z_L$ ,
- (c) a mainly constant-DC-voltage-generating network, V<sub>B</sub>, is connected between the gates of Q<sub>1</sub> and Q<sub>2</sub>, with a polarity causing Q<sub>2</sub> to conduct less than Q<sub>1</sub>, and a voltage causing Q<sub>2</sub> not to conduct before Q<sub>1</sub> conducts or aims to conduct the full rated current, i.e. a current of the same magnitude as the output current,
- (d) the driver stage is connected to the gate of Q<sub>1</sub> or to the gate of Q<sub>2</sub> or at some other point in the constant-DC-voltage-generating network, V<sub>B</sub>.

## 3 Claims, 5 Drawing Figures

